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EXAMINER
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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* FRANCIS LAMY and JON K. NISPER

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Appeal 2016-002362  
Application 11/617,880  
Technology Center 2600

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Before ERIC S. FRAHM, JOHNNY A. KUMAR, and  
CATHERINE SHIANG, *Administrative Patent Judges*.

KUMAR, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from the Non-Final Rejection of claims 24–34, 36, 37, 39, 44, and 51–63. Non-Final Act. 1.<sup>1</sup> We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

*Exemplary Claims*

Exemplary claims 24, 25, and 36 under appeal read as follows (emphasis and bracketing added):

24. A system for generating and displaying a modeled appearance of a surface of interest on an electronic visual display device, the system comprising:

[(A)] a display device;

[(B)] an orientation sensor adapted to sense at least one of the roll, pitch or yaw of the display device; and

[(C)] a processor in communication with the orientation sensor and the display device, the processor programmed to:

[(i)] derive an orientation of the display device from an output of the orientation sensor; and

[(ii)] generate modeled appearance data for the surface of interest based at least in part on an appearance attribute of the surface and the orientation of the display device;

[(D)] wherein the display device receives modeled appearance data for the surface of interest from the processor and displays the modeled appearance of the surface of interest.

25. The system of claim 24, further comprising an illumination sensor, wherein the processor is in communication with the illumination sensor and further programmed to (i) derive an ambient illumination condition for the display device from an output of the illumination sensor and (ii) generate the

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<sup>1</sup> We refer to the Non-Final Office Action of October 14, 2014.

modeled appearance data for the surface based at least in part on the ambient illumination condition of the display device.

36. A system for generating and displaying a modeled appearance of a surface of interest on an electronic visual display device, the system device comprising:

[(A)] a display device;

[(B)] a surface measurement device configured to measure at least one of a color and a texture of a surface of interest, and

[(C)] a processor programmed to:

[(1)] communicate with the surface measurement device and the display device, and

[(2)] generate modeled appearance data for of the surface of interest based at least in part on (i) the measured at least one of the color and the texture of the surface of interest, and (ii) at least one environmental factor for the display device:

[(D)] wherein the display device receives modeled appearance data for the surface of interest from the processor and displays the modeled appearance of the surface of interest.

*Rejections<sup>2, 3</sup>*

Claim 44 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Non-Final Act. 3.

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<sup>2</sup> Separate patentability is not argued for claims 28, 29, 31, 33, 34, 44, and 51–59. As to these claims, Appellants merely reference the arguments of claim 24. App. Br. 9, 10, 12, and 13. Except for our ultimate decision, claims 28, 29, 31, 33, 34, 44, and 51–59 are not discussed further herein.

<sup>3</sup> Separate patentability is not argued for claims 37, 39, and 59–61. As to these claims, Appellants merely reference the arguments of claim 36. App. Br. 12. Thus, the rejections of these claims turns on our decision as to claim 36. Except for our ultimate decision, these claims are not discussed further herein.

Claims 24, 31, 33, 36, 37, 39, 51, 55, 56, and 59–62 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Greene (US 2007/0061101 A1, Mar. 15, 2007) and Nagano (US 6,486,879 B1, Nov. 26, 2002). Non-Final Act. 4–7, 15–19.

Claims 25–27, 32, and 63 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Greene, Nagano, and Nayar (US 2004/0070565 A1, Apr. 15, 2004). Non-Final Act. 8–11, 19–20.

Claims 28–30 and 34 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Greene, Nagano, and Kanamori (US 2006/0238502 A1, Oct. 26, 2006). Non-Final Act. 11–15.

Claim 44 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Greene, Nagano, and Chang (US 6,741,655 B1, May 25, 2004). Non-Final Act. 20–21.

Claims 52 and 57 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Greene, Nagano, and Wells (US 2007/0004513 A1, Jan. 4, 2007). Non-Final Act. 22–23.

Claim 53 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Greene, Nagano, Wells, and Dixon (US 2005/0083293 A1, Apr. 21, 2005). Non-Final Act. 23–25.

Claim 54 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Greene, Nagano, and Tucker (US 6,141,725, Oct. 31, 2005). Non-Final Act. 25–26.

Claim 58 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Greene, Nagano, and Leapman (US 2003/0198008 A1, Oct. 23, 2003). Non-Final Act. 26–27.

*Appellants' Contentions*

1. Appellants contend that the Examiner erred in rejecting claim 24 under 35 U.S.C. § 103(a) because Green fails to teach:

According to various embodiments [of the Specification], resulting changes to the displayed appearance of the surface 401 or 403 may be *updated in real time or near real time*. . . .

Green is concerned with creating a *virtual experience*. . . . However, Green does not disclose or suggest receiving *appearance attributes of the surface*.

App. Br. 8 (emphasis added).

2. Appellants also contend that the Examiner erred in rejecting claim 24 under 35 U.S.C. § 103(a) because:

there is no indication in Nagano that the *collected data could be combined with data relating to the environment* in which the display is configured to provide a modeled appearance of the surface in the display's environment.

App. Br. 9 (emphasis added).

3. Appellants also contend that the Examiner erred in rejecting claim 24 under 35 U.S.C. § 103(a) because:

Instead of considering the totality of the references, the examiner insists on picking and choosing various features of the references *without providing a motivation to do so* and without regard to whether the features of those references would have (or could have) been combined by a skilled artisan (i.e., why and how the cited references would be combined, as required for a *prima facie* showing of obviousness).

App. Br. 7 (emphasis added).

4. Appellants contend that the Examiner erred in rejecting claim 30 under 35 U.S.C. § 103(a) because “claim[] 30 requires that the modeled appearance data be ‘regenerated.’” App. Br. 10–11.

5. Appellants contend that the Examiner erred in rejecting claim 25 under 35 U.S.C. § 103(a) because:

Appellant respectfully notes that the Examiner’s argument with respect to the teachings of Nayer provides no further insight into how Nagano’s teaching covers a system that generates *a new appearance* based on input from both the orientation of display and the original surface of interest. Again, Nagano is capable of displaying the surface of interest to the extent (and only to the extent) that imaging data for the object was originally captured — Nagano fails to teach *generating a new modeled appearance* of that surface of interest based on an appearance attribute of the surface of the object as well as based on the orientation of the display device.

Reply Br. 8 (hereinafter “the new appearance” feature) (emphasis in original omitted, emphasis added).

6. Appellants contend that the Examiner erred in rejecting claim 36 under 35 U.S.C. § 103(a) because:

The invention of claim 36 does not require *the prior capture of a large amount of data for surfaces of interest* — eliminating the task of manipulating a camera into various potential different positions relative to the object to be imaged and a light source into various potential different positions relative to the object (e.g., positioning camera 12 of Nagano and light source 14 of Nagano to different positions relative to the object A for capturing imaging data of interest). Further, the invention of claim 36 eliminates the need for storage of this large body of image data (i.e., imaging data for each camera and light source position combination).

Reply Br. 6 (hereinafter “the prior capture” limitation) (emphasis added).

7. Appellants also contend that the Examiner erred in rejecting claim 36 under 35 U.S.C. § 103(a) because:

Thus, with the *hypothetical combination of Nagano and Greene* proposed by the Examiner, the orientation of the display device can be varied, but the images that are available to be displayed remain limited to the plotted models stored in memory. While it may be possible to select a plotted model from memory for which the position of the camera relative to the object corresponds to the desired position of the display device relative to the object to make the plotted model available for viewing, it is not possible to display image data for which there is not a plotted model already in memory as per Nagano.

In contrast, in the invention of claim 36, . . . imaging data is generated and *immediately displayed*, the system user is able to evaluate how the perceived appearance of a paint chip sample may change depending on the environment of the display device.

Reply Br. 7–8 (emphasis added).

8. Appellants further contend that the Examiner erred in rejecting claim 44 under 35 U.S.C. § 112, second paragraph, because “the language ‘on surface property’ is not found in the claim.” Reply Br. 2 n.1.

#### *Issues on Appeal*<sup>4</sup>

Did the Examiner err in rejecting claims 24, 25, and 36 as being obvious?

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<sup>4</sup> Regarding the Examiner’s objection to claims 52 and 53 for containing informalities (Non-Final Act. 3) this Board lacks jurisdiction over this matter. Objections are reviewed by way of petition to the Director of the USPTO. *See* MPEP § 706.01.



## ANALYSIS

We have reviewed the Examiner's rejections in light of Appellants' arguments (Appeal Brief and Reply Brief) that the Examiner has erred. We disagree with Appellants' conclusions. Except as noted below, we adopt as our own (1) the findings and reasons set forth by the Examiner in the action from which this appeal is taken and (2) the reasons set forth by the Examiner in the Examiner's Answer in response to Appellants' Appeal Brief. We concur with the conclusions reached by the Examiner. We highlight the following additional points.

As to Appellants' above contention 1, we disagree. Appellants' argument is not commensurate with the claim language as claim 24 does not recite updating in real time or near real time. In addition, claim 24 does not preclude Greene's virtual experience feature. Finally, as to receiving appearance attributes of the surface, the Examiner did not cite Greene for this limitation. Rather, the Examiner relied on Nagano to teach receiving appearance attributes of the surface. Non-Final Act. 5–6.

As to Appellants' above contention 2, we disagree. The Examiner finds,

Nagano discloses in column 6, lines 46-54: "the surface color of the measurement object A lighted by the light source 14 from the light source direction L-1 and measured by the light source 14 from the viewpoint direction V-1 in FIG. 6 is darker than that of the measurement object A lighted by the light source 14 from the light source direction L-M and measured from the viewpoint direction V-1." *The appearance data for the surface such as color is obtained based on the environmental data such as light. The measurement object A lighted by a light source is darker the object A is lighted by another light source, this shows that the collected data (surface color) is combined with data relating to the environment.* Nagano discloses in column

8, lines 25-44: “Light field rendering method (plotting processing method A). Method which employs displacement mapping which allows a concave and convex configuration of a plane to be regenerated finely and texture mapping which plots in such a manner as to paste textures to the surface of a model in combination (plotting processing method B), Method based on an Oren-Nayar lighting model wherein plotting is performed based on a concave and convex configuration of the surface and a reflection factor (plotting processing method C), and Method based on a Phong lighting model wherein plotting is performed based on a reflection factor which depends upon the material of the object (plotting processing method D).” *This portion shows methods combining environmental data with the surface data.*

Ans. 27 (emphasis in original omitted, emphasis added) (citing Nagano, col. 6, ll. 46–54, col. 8, ll. 25–44).

Thus, we agree with the Examiner that Nagano teaches combining environmental data with surface data.

As to Appellants’ above contention 3, we disagree. Appellants are mistaken in arguing that a motivation is required, because the *KSR* Court repudiated any requirement for such a “motivation” to show obviousness. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 415 (2007) (“We begin by rejecting the rigid approach of the Court of Appeals.”). Rather, the requirement is only that the Examiner show “the subject matter as a whole **would have been obvious** at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” *KSR*, 550 U.S. at 406 (emphasis added) (quoting 35 U.S.C. § 103); *id.* at 418 (“[T]he analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would

employ.”). We conclude that the Examiner provides just such a showing in the rejection from which this appeal is taken. Non-Final Act. 6.

As to Appellants’ above contention 4, we disagree. Claim 30 requires the processor to regenerate the modeled appearance data for of the surface in response to a change in the vantage point location. Contrary to Appellants’ arguments, Kanamori explicitly discloses displaying from the entire image to a part of the subject for varying viewing distances (Ans. 28, ¶¶ 70–71). That is, Kanamori discloses regenerating data for of the surface in response to a change in the vantage point location. Nothing more is required by claim 30.

As to Appellants’ above contentions 5 and 6, in the Reply Brief, Appellants present for the first time new arguments against the rejection of claims 25 and 36. In the absence of a showing of good cause by Appellants, we decline to consider an argument raised for the first time in the Reply Brief. This is because, as the Examiner has not been provided a chance to respond, and in the absence of a showing of good cause by Appellants, these arguments would be deemed waived. *See* 37 C.F.R. § 41.41(b)(2) (2012); *In re Hyatt*, 211 F.3d 1367, 1373 (Fed. Cir. 2000) (noting that an argument not first raised in the brief to the Board is waived on appeal); *Ex parte Nakashima*, 93 USPQ2d 1834, 1837 (BPAI 2010) (explaining that arguments and evidence not timely presented in the principal Brief, will not be considered when filed in a Reply Brief, absent a showing of good cause explaining why the argument could not have been presented in the Principal Brief); *Ex parte Borden*, 93 USPQ2d 1473, 1477 ( BPAI 2010) (informative) (“Properly interpreted, the Rules do not require the Board to take up a belated argument that has not been addressed by the Examiner, absent a

showing of good cause.”). Appellants have provided this record with no such showing of good cause.

In this case, even if we were to consider Appellants’ above contentions 5 and 6, Appellants’ arguments are not commensurate in scope with the claim language. Claim 25 does not recite the “new appearance” feature. Claim 36 does not preclude Nagano’s “prior capture” feature.

As to Appellants’ above contention 7, we disagree. We are not persuaded because essentially, Appellants’ argument is premised on a “physical” or “bodily” incorporation of limitations of one reference into the other. This is not the standard. *See In re Sneed*, 710 F.2d 1544, 1550 (Fed. Cir. 1983) (“[I]t is not necessary that the inventions of the references be physically combinable to render obvious the invention under review.”); *In re Keller*, 642 F.2d 413, 425 (CCPA 1981) (“The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; . . . Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art.”). Moreover, “[a] reference must be considered for everything it teaches by way of technology and is not limited to the particular invention it is describing and attempting to protect.” *EWP Corp. v. Reliance Universal Inc.*, 755 F.2d 898, 907 (Fed. Cir. 1985) (emphasis omitted).

As to Appellants’ argument about “immediately displayed,” Appellants’ argument is not commensurate with the claim language as claim 24 does not recite “immediately displayed.”

As to Appellants’ above contention 8 about claim 44, we agree.

DECISION

The Examiner's 35 U.S.C. § 103(a) rejections of claims 24–34, 36, 37, 39, 44, and 51–63 are affirmed.

The Examiner erred in rejecting claim 44 under 35 U.S.C. § 112, second paragraph, as being indefinite. Therefore, the indefiniteness rejection of claim 44 is reversed.

Because we have affirmed at least one ground of rejection with respect to each claim on appeal, the Examiner's decision rejecting claims 24–34, 36, 37, 44, and 51–63 is affirmed. *See* 37 C.F.R. § 41.50(a)(1).

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED